

**Course:** AP Calculus

**Texts:** Calculus Single Variable By Hughes-Hallett, Gleason, et al.  
Calculus and Analytic Geometry by Thomas and Finney

**Replacement Cost:** \$65 .00 (each)

*This course fulfills the following Shrewsbury High School student expectations:*

- *Fulfill individual academic potential.*
- *Develop critical and creative thinking skills to solve real world problems.*
- *Develop mathematical, scientific, and economic literacy.*
- *Develop competency in the use of information and technology.*
- *Formulate and express opinions supported by facts and data in effective presentations.*
- *Demonstrate effective reading, speaking, writing, and listening skills.*
- *Participate in collaborative and cooperative learning.*
- *Demonstrate a respect for individual abilities.*
- *Demonstrate self-discipline and personal responsibility for learning.*

### **Course Description:**

Students are expected to take responsibility for their own learning, as the course is designed to be a transition from high school to college curriculum. A firm foundation in calculus is necessary for pursuing careers in science, mathematics, business, and some social sciences. AP Calculus should provide the building materials for success on the advanced placement exam, thus enable those students who successfully complete this course to begin their college careers on firmer footing. In order to have a successful year students must understand that calculus will involve a great deal of their time and energy during the year and in preparation for the AP exam. Topics to be studied include polynomial, trigonometric, logarithmic, and exponential functions and their graphs; limits; differentiation; integration; applications of each of these; definite integrals; and techniques of integration.

### **Materials:**

- ✓ Math Notebook
- ✓ Covered Textbook
- ✓ *Students must have his or her own graphing calculator( TI 83 is the best for this course) for classroom use, use on tests and quizzes, and homework use.*
- ✓ Pencils , Erasers and ruler, because we all make mistakes.
- ✓ Student Planner

**Course Expectations:** Homework will be assigned on a regular basis and will be a component of the marking period grade. Students will also be assessed on their tests, quizzes, projects, take-home quizzes, and individual/collaborative classwork. As communicating mathematical thinking will be stressed throughout the course, assignments will always involve some type of written analysis/explanation. Students are expected to be inside the classroom on time, to be prepared, and to take pride in their work. Students are also expected to be respectful of their teacher, peers, and classroom materials.

**Semester Grade:** Each quarter grade counts 40% and the semester exam counts 20% of the semester grade.

**Extra Help:** Available after school Monday – Thursday in the Math Lab (B202) or with the course teacher.